GENERAL DYNAMICS
Mission Systems

SD8110
Smart Display Unit

Rugged vehicle display with Intel® Xeon® processing

The SD8110 is a lightweight and ultra-rugged, smart display capable of high performance computing and visualization of sensors for on-the-move applications.

Combining high reliability display, processing and vehicle interfaces in a size, weight, power and cost effective package.

The wide range of open-standard I/O allows seamless integration with open standard vehicle electronic architectures as well as most legacy subsystems.

Qualified for operations in the most demanding vehicle environments ranging from light wheeled to heavy tracked vehicles.

Features:

- Sunlight-readable 10.4" touchscreen display
- Intel® Xeon® processor up to 6-cores/12-thread suitable for demanding applications
- Display multiple sensor imagery
- Open-standard based interfaces
- Embedded video processing with lowest latency CPU-independent visualization
- Embedded Gigabit LAN switch
- Expansion provisions enable platform customizations
- Removable storage
- 32 backlit multi-function bezel buttons for control on-the-move
- Highly integrated LRU reduces Size, Weight, Power and Cost (SWaP-C) relative to distributed architectures
- Controlled life cycle support

Main Processor

CPU	Intel® Xeon® E-2276ML
Info. Assurance	UEFI BIOS with TPM 2.0
	Secure boot for hardware root of trust
Memory	16 GB ECC DDR4 SDRAM
Graphics	Intel® UHD graphics P630
Storage	[OPTION] Removable 2.5" 960 GB SATA 3 SSD
	[OPTION] Removable 2.5" 960 GB OPAL 2.0 SED SATA 3 SSD
	[OPTION] Internal 240 GB SATA 3 SSD

External Interfaces

Computing	2 Gigabit network interfaces
	3 USB 2.0
	1 Serial RS-232 or RS-422
	1 Serial RS-232
	1 Audio output
	2 CAN bus
System	2 Gigabit network switch ports
	10 Contact closure inputs
Video	4 Composite video inputs
	1 Component video input
	1 Component video output

Display Characteristics

Resolution	1024 x 768, 123 PPI
Size	10.4"
Contrast Ratio	500:1, >6:1 in sunlight
Dimming Range	<0.15 to >1000 cd/m²
Touch Screen	Resistive with tethered stylus
Buttons	32 backlit physical buttons

Embedded Expansion

Removable Storage	Removable storage bay for SSD or SED
Mini-PCIe/mSATA	Specialty interfaces or embedded storage, refer to OPTIONS

Video

Processing	Hardware accelerated low-latency video processing
Multiview	Customizable Picture-in-Picture
Overlays	Chroma-keyed desktop
Video Encode	Video encoding, H.264 (AVC)
Video Decode	Video streaming, H.264 (AVC)

Physical Characteristics

Size (w x h x d)	286 x 254 x 82 mm (11.25" x 10.00" x 3.23")
Mounting	4-point top/bottom 263 mm (10.35") pitch
Weight	6.81 kg (15 lbs)
Connectors	Sealed rugged circular
Input Power	MIL-STD-1275, 75 W (typical)

Environmental Conditions

Operating temperature	-40°C to +60°C (-40°F to 140°F)
Storage temperature	-51°C to +71°C (-60°F to 160°F)
Environmental	MIL-STD-810G, vibration, shock, immersion, altitude, aggravated humidity, sand, dust, salt fog
EMI/EMC	MIL-STD-461F, ground army
Touchscreen	Wrench drop and pendulum impact
CBRN	FM 3-11 hardened

The smart display described here represents a general configuration of this family of products. Specifications are configurable for specific customer requirements. Some options may be mutually exclusive. For pricing and availability, interfaces, bezel buttons, casings, connectors and other information, please contact your General Dynamics representative.

GENERAL DYNAMICS
Mission Systems